



05-11-07

AF/CC  
2743  
B  
STW

**Expedited/Special Procedure**

**APPN: 09/134,831 (Reissue)**  
**Filed: August 17, 1998**  
**Appellant: Richard P. Mettke**

**Title: On-line Communications Terminal/Apparatus**  
**Group Art Unit: 2743**

**Examiner: Stella Woo**

**NOTICE OF APPEAL AND APPEAL BRIEF  
TO THE COMMISSIONER OF PATENTS**

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited on  
5/10/07 with the US Postal Service with return  
Receipt requested. The envelope was addressed to:  
Commissioner of Patents and Trademarks,  
Mail Stop Appeal  
P.O. Box 1450 Alexandria, VA 22313-1450

Commissioner of Patents and Trademarks,  
Mail Stop Appeal,  
P.O. Box 1450 Alexandria, VA 22313-1450

Dear Commissioner of Patents and Trademarks,

In accordance with Code of Federal Regulation 37, section 1.191, I am filing an ex parte  
notice of appeal and appeal brief to the Board of Patent Appeals and Interference.

Because this is part of a reissue prosecution, this case should be **special and expedited**. I  
am appealing the examiner's rejection (35 USC 103 (a)) of the claims in my Request for  
Continued Examination (RCE) under 37 CFR 1.114. The RCE was filed on 27  
November 2006. A Final Office action was issued on February 23, 2007. Enclosed is

PTO-2038, Credit Card Payment Form authorizing the payment of \$500 (Notice of

appeal fee of \$250.00 and filing a brief in support of an appeal fee of \$250.00) prescribed in the USPTO fee schedule as required for this action(s). This is a reissue application of Patent 5,602,905. I have presented a *prima facie* case for the allowance of the claims during the prosecution of the reissue application. As this reissue case has been prosecuted for almost nine years, the applicant requests that a sense of urgency be given to this appeal.

1. **Real party in interest.** I, Richard P. Mettke, appellant, am the real party in interest.
2. **Related appeals and interferences.** There are no appeals or interferences known to the appellant which would directly affect or have a bearing on the Board's decision in the pending appeal.
3. **Status of claims.**  
  
Claims 6 is pending  
  
Claim 6 was rejected by the examiner.
4. **Claim 6 is being appealed.**
5. **Status of amendments.** All amendments and responses to Office Actions have failed to persuade the Examiner. No amendments are pending.

**Summary of invention.**

The present invention disclosed herein comprises a system for accessing and interfacing the Internet using a credit card. The system includes a video display monitor coupled to a CPU; a keyboard for providing user interface coupled to the CPU; a credit card reader swipe device coupled to the CPU for accepting payment by a user for use of the terminal or other activity; means for accessing the Internet and allowing for

user interaction; software installed into the CPU to allow interface with the Internet and credit card service centers; and a printer coupled to the CPU.

Users can publicly access and interface with the Internet and pay for use or activity using a credit card. The applicant has hard time not viewing that the previous BPAI decisions were not based on hindsight. The BPAI had to present the combination of ~8 pieces of prior art two different ways in rendering their decision that the applicant claims were obvious. Furthermore, there was no discussion of the state of Internet which was key here. 1994 and 1995 were key years in the development of Intranet technologies and processes. That was a crowded time frame for Internet technologies and processes. Some of these processes and technologies may seem to have been "common sense" or obvious now, but until the growth of the Internet, they were by no means obvious. What were you doing with the Internet in January 1995? Would you have paid to access or perform some action at a terminal? I will show in this brief that the BPAI (and examiner) made many errors in their decision and that this case should have never been sent to the BPAI. The BPAI erred in its interpretation of the scope and wrongly used hindsight to combine prior art, in essence blue printing the applicants claims to obviousness. The BPAI erred in describing the level of ordinary skill in the prior art. I will show how later in this brief. There were too many differences in the ~8 pieces of prior art that the BPAI combined to render the applicants claims as obvious. The applicant will show in this brief other considerations, which serve as indicia of nonobviousness that will include, commercial success, unsolved need and failure of others. This case and its claims should have been allowed over 7 years ago.

**The appellant would like to note the original Patent was applied for on January 23,1995 and granted on February 11, 1997.**

**6. Issues.**

**I. The drawings:**

The examiner objected to the drawings because the original disclosure does not support the showing of the terminal housing as depicted in Figure 2, which was submitted as part of a substitute sheet of drawing during the prosecution of the original patent for the same reasons given in the final Office action mailed March 12, 2002. Her rationale was that Figure 2, as originally filed, shows a cubicle with a work area/desk top, privacy wall, chair/ stool and a terminal device generally labeled as numeral 2. There is no support in the original disclosure for the terminal housing as incorporating the monitor, keyboard, and credit card reader in the manner depicted in the current Figure 2. The examiner states that correction is required.

**II. New Matter-** The examiner states in the final office action mailed March 12, 2002, new matter was added as an amendment to the specification during the prosecution of the original patent. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: col. 2, lines 3-7; col. 2, line 53 - col. 3, line 3.

**III. Claim Rejections - 35 USC § 103**

The examiner rejected Claim 6 under 35 U.S.C. 103(a) as being unpatentable over the article by Allen Weiner, entitled "TouchFax Provides the Ultimate in Place-Based Interactivity" (submitted as Exhibit E in the TouchNet Protest on November 4, 1998,

hereinafter "Exhibit E") in view of the TouchFax brochure entitled "Vision, Power, Versatility" (submitted as Exhibit F in the TouchNet Protest on November 4, 1998, hereinafter "Exhibit F"), and further in view of an article by Rawn Shah entitled "Suggestions for Information Kiosk Systems using the World Wide Web", submitted with the Protest by North Communications, Inc. as Exhibit I (hereinafter "the Shah article") for essentially the same reasons given in the final Office action mailed March 12, 2002 and the Examiner's Answer mailed August 17, 2005, and affirmed by the BPAI Decision mailed August 31, 2006. The examiner also rejected claim 6 on the grounds of *res judicata* (see MPEP 706.03(w)).

lines 11-12).

**IV Applicants argument that the Shah Abstract teaches away accessing the Internet.**

The examiner states that the applicant's arguments that filed October 25, 2006 have been fully considered, but they are not persuasive. The Applicant argues that "Shah teaches away from accessing the Internet." The examiner disagreed. Her rationale; Firstly, the title of the Shah article is "Suggestions for Information Kiosk Systems using the World Wide Web." On page 2, line 4, Shah clearly states that "the Web is part of the Internet. This allows users access to the many services on the Internet." Moreover, in the BPAI decision, which is in effect, the "law of the case" (see MPEP 706.03(w)), the Board states that "Shah teaches, in 1994, providing Internet access from a public kiosk in order to give users access to the many services on the Internet. Shah suggests that consumers wanted access to the Internet for these services.

## **7. Grouping of claims.**

The Examiner has rejected Claim 6 as not being patentable (35 USC, 103 (a)).

## **8. Argument.**

### **Issue I- the drawings; whether new matter was introduced into the drawings**

The applicant respectfully submits that the same examiner accepted the resubmission of his drawings in 1996. The resubmission was based on the examiner's direction in office action dated, April 27, 1995, page 2, line 3, "Therefore, the modem, central processing unit, monitor, keyboard and printer must be shown or the features cancelled from the claims. The applicant is at a loss at how an examiner can frequently change their mind as to what is proper and what is not proper in a patent prosecution. Never the less, the applicant will work with the examiner to determine what is acceptable, when the prosecution reaches the point of reissue.

### **Issue II New Matter-**

The items that the examiner requested be removed which is not supported by the original disclosure (col. 2, lines 3-7; col. 2, line 53 - col. 3, line 3) where deleted in an Amendment **dated May 29, 2002.**

### **Issue III-Whether claim 6 is unpatenable under 35 USC, 103 (a) over the prior art**

The Examiner based her response in the Final office action, dated February 23,2007 for the most part on her previous responses to office and appeal actions (not withstanding the applicant's arguments that the Shah Abstract teaches away from accessing the Intranet that is addressed below in Issue IV). The examiner pretty much summed up that the applicant's comments/arguments relating to that the patentability of Claim 6 was without

merit because of the BPAI's decision of August 31, 2006 which is in effect, the "law of the case" or *res judicata*. The applicant respectfully disagrees that he can not rebut the BPAI's decision, otherwise the August 31, 2006 decision would have been made final for judicial review. At least the applicant would hope so. Otherwise, the applicant would be wasting another twelve months or more submitting another appeal. This case has clearly taken too much time in to come up with a final resolution. If I had to keep an attorney on retainer to prosecute this case for the entire time, I'm sure it would have cost the applicant \$ ~ 3-5 million, over the almost 9 years it has taken. I'm surprised that any independent inventor can get anything patented. I intend to address my comments/arguments to both the BPAI decision of August 31, 2006 and the Final Office action of February 23, 2007 relating to the rejection of Claim 6 in the following paragraphs.

The applicant disagrees that "TOUCHFAX AMERICA, video tape recorded May 14, (Exhibit C to TouchNet Protest) (Artifact No. 09134831VA), including six printouts of frames from the video tape (Exhibit C, 1 to Exhibit C, 6) (Artifact No. 09134831CA)" render claim 6 obvious. The videotape is clearly a concept, experimental, an idea and marketing tool. The examiner rightfully excluded it in an Office Action dated August 24 1999, page 8, 3<sup>rd</sup> paragraph". Although Exhibit C, 4 shows a frame from the video tape of exhibit C advertising connection to the Internet, it was stated in the deposition Daniel J. Toughey (attachment D, pages14-15 of RCA) that the terminal shown in the video tape did not actually enable a user to gain access or interface with the Internet.

This alone should have negated it use as prior art or use as rendering the applicants claims as obvious. The applicant also disagrees that TouchFax Network Topography Diagram, © 1991 TouchFax Information Systems, Inc. (Exhibit D to TouchNet Protest) is prior art. In his deposition (attachment I, page 22 & 98 of RCA), Mr. Toughey states specifically that in 1991 (the time the document was distributed), the terminals did not have access to the Internet, Prodigy and CompuServe. A concept, experimental, an idea and marketing tool. This alone should have negated it use as prior art or use as rendering the applicants claims as obvious. Probable utility does not establish practical utility.

The BPAI rejected claims 6-9 under 35 U.S.C. § 103(a) as unpatentable over Exhibit C (including Exhibits C, 1 to C, 6), Exhibit D., Exhibit E, Exhibit F, L&G ISDN console, Internet Navigator, Aliens, and On Haiti.

The BPAI states that in Exhibit E it states that "'The TouchFax is designed to emulate exactly what a person will be able to use in their homes,' says Massey" (page 31, line 16 of BPAI decision) and the application, as originally filed, acknowledges that home and business provided access to online service providers and the Internet; thus, there is a suggestion to modify the TouchFax terminals to provide public online services and public Internet access as those features became common at home and business."

The applicant does not understand how this is a "suggestion to modify" a TouchFax terminal to include Internet access and interface. The only suggestion would be if they (Touchfax) saw the applicant's disclosure and added this capability to their terminal. In fact, Mr. Toughey's, states in his deposition that the Touchfax terminals and exhibits above did not have the capability to access the Internet prior to the date of the applicant's disclosure in January 25, 1995. He also goes on to state that as of the date of his



deposition, **June 16, 1998** , **no** Touchfax terminals had the capability access and interface with the Internet (Attachment I, pages 14-15, 44). This is three and a half years after the applicant's disclosure on January 23, 1995. This clearly points to nonobviousness and demonstrates a lack of suggestion, teaching or motivation.

The BPAI suggests that the motivation to combine any of the teachings of TouchFax Exhibits C, D, E, and F is that all of the exhibits are from the same corporation, TouchFax, and expressly teach modifications.

The applicant respectfully disagrees that there is motivation to combine Exhibits C, D, E, and F and that they expressly teach the modifications to add Internet access and interface on a point-of-sale basis. The BPAI does not "show" objectively how the references teach this modification other than seeing the applicant's disclosure in January 1995.

Mr. Massey's statements in his deposition, "that the BPAI quotes" stated that they (exhibits E & F) have the capability to expand or modify the terminal applications to "meet customers needs" are indefinite and probable. Of course he is going to say this when he is under going a litigation deposition. There is no corroboration of his statements. In fact, Mr. Toughey's, states in his deposition that the Touchfax terminals and exhibits above did not have the capability to access or interface with the Internet prior to the date of the applicant's disclosure in January 25, 1995. He also goes on to state that as of the date of the deposition, **June 16, 1998**, **no** Touchfax terminals had the capability access and interface with the Internet (Attachment I, pages 14-15, 44). This was three and half years after the applicant's disclosure and clearly points to **nonobviousness**.

I would like to point out that there are distinct and clear difference's between Commercial On-line Services (AOL, Prodigy, CompuServe, etc) and the Internet. The

BPAI has for the most part adequately defined them in their August 31, 2006 decision. I shall not repeat the descriptions here.

I will take exception to the BPAI's interpretation of access (and interface; which was not addressed in their email analysis) to the Intranet. The BPAI stated that because some of the Commercial On-line services provided email, they provided access to the Internet via e-mail. The board stated on page 47 (BPAI decision), that the claims recite access to the Internet is met by access to "one service" on the Internet, such as e-mail. The board also states that email through a Commercial On-line service provider (AOL, Prodigy, Compuserve, etc.) that uses the Internet to send email qualifies as "access to the Internet". The applicant respectfully asks the questions; What about interface?

The applicant respectfully disagrees that accessing on-line service providers qualify as Internet access and interface. Claim 6 states "accessing the Internet ", as well as interfacing with the Internet. My claims do not say that you have to go through the method of point A (commercial on-line service) and B (send an email) and then point C email goes through the back office on-line service propriety architecture and may or may not be sent over the Internet. Clearly the claims in 6 say access and interface with the Internet. You either have access and interface or not. This an area that the applicant feels is clear a case of blue printing by the BPAI; using my disclosure to put together pieces of prior art to teach my claims.

On Haiti describes that "'Cyberia' -- a 'cyberspace cafe' --has opened recently in central London offering coffee, cakes and connection to the Internet. Connect charge: 1.95 British pounds per half-hour."

On Haiti has 26 words in the article. There is not enough information to assess this prior art. There is not enough detail that discloses the structure, interface, and processes for this reference to be applied as prior art. Let alone suggesting, teaching or showing motivation to combine. Regardless, the BPAI has not provided any clear specific evidence to support the combination or modification as they suggest. The BPAI's unsupported methodology in using Haiti and its combination of prior art could render just about any patent obvious. Suppose it was an article about a "man sells cold soda from his store.....and 19 more words". Using the methodology above, the BPAI could determine that all vending machines and associated technologies (Refrigeration, coin acceptance machines, etc) were obvious. I could give many other examples.

The Landis & Gyr, ISDN console, Public telephone and telematic console. The examiner had reviewed; this relied upon prior art by the BPAI. In an Office Action Summary, dated August 24, 1999, the Examiner stated on page 8- 9, ". ....they lack certain elements in the claims, such as a printer, touch screen interface and Internet access." Hence it was not relied on prior art. The applicant agrees.

#### **The scope of the invention Arguments**

The BPAI defined the applicant's field of endeavor as a pay-per-use public communication terminal, and the particular problem with which the invention was concerned with was providing access to the Internet. Exhibits C, D, E, F, L&G ISDN console, and On Haiti relate to pay-for-use public communication terminals. The BPAI also said the references were within the inventor's field of endeavor. The Internet Navigator and Aliens relate to on-line service providers and access to the Internet and are reasonably pertinent to the problem of providing Internet access and interface or as pay-as you-use application.

The applicant respectfully disagrees that the terminals listed above (Exhibits C, D, E, F, L&G ISDN console) are within the field of endeavor (nor are they pertinent) to the matter at hand. They are not analogous art. None solve the problem of accessing the Internet or interface as the applicant's claims represent. If the terminals accessed the Internet (the problem that the applicant solves), allowed for interface on a point-of-sale basis, then they may have been pertinent and relating to the applicants filed of endeavor. The BPAI use of Public Communications terminal is too broad as a field of endeavor.

Communications relates to many sub areas, facsimile machines, telephones, televisions, cellular phone and global positioning systems just to mention some of the areas. A more narrowed (and correct) field of endeavor would have been "Internet". Hence, if the proper filed of art were used, it would negate the BPAI's analysis and resultant decision.

The BPAI brief states "Exhibit C expressly discloses that the TouchFax terminal can be built to provide access to the Internet. The fact that Exhibit C is a later improvement of the TouchFax terminal of Exhibits E and F, and is by the same corporation, provides the express suggestion to modify Exhibits E and F to provide access to the Internet. Exhibit C is not been applied as the main reference because it is easier to point to teachings in writings than in a video tape. Because Exhibits C, E, and F are pay-for-use public terminals, one skilled in the art would have been motivated to charge for access to all telephone, facsimile, and computer services, including an added computer service of access to the Internet. (The last part of the underlined statement is pure speculation inserted by the BPAI, as evidenced by Mr. Massey and Mr. Toughey statements that their terminals, more than 2 ½ years after the applicant's disclosure could not access the Internet).

It has been proven by statements in a deposition by Mr. Toughey, (Attachment I, pages 14-15,44), that the terminal in Exhibit C did not access or interface with the Internet. That the tape was a vision or concept. Also, in his deposition he stated that as of the date of the deposition (June 16, 1998), 3 ½ years after the applicants disclosure, that the referenced Touchfax terminals still did not have the capability to access and interface with the Internet as in the applicant's claims. So, how could it be a later improvement, as stated by the BPAI? Applicant fails to see how exhibit C "demonstrates" that the terminal "can" be built. Particularly when the owner of Touchfax stated that they did not have terminals capable of accessing and interfacing with the Internet, as previously mentioned in his deposition as late as June 1998. Furthermore, the applicant fails to see any objective or specific reasons provided by the BPAI as to how exhibits C, E and F show motivation to add Internet access and interface. Again, the owner of Touchfax stated that they did not have terminals capable of accessing and interfacing with the Internet as previously mentioned in his deposition as late as June 1998 and exhibit C was a marketing tool and concept. Probable utility is not practical utility.

The BPAI brief states that" Exhibit D discloses that it was known to be able to connect the TouchFax pay-for-user terminal to online service providers, such as CompuServe and Prodigy, in 1991. The fact that Exhibits D, E, and F all relate to a TouchFax terminal by the same corporation provides **the express** suggestion to modify Exhibits E and F to provide access to online service providers.

Regardless of the BPAI interpretation of what qualifies for Internet access, the *Internet Navigator* (a reference provided by the BPAI)clearly points out that on-line service

providers are not the Internet (page 57). As previously discussed, Touchfax representatives stated (in a deposition) that in 1991, the date of the publication, that they did not have access to on-line services such as Prodigy and CompuServe. This should have negated this document as any type of reference.

The BPAI stated that they approached "the obviousness issue from two directions. First, Exhibits E and F are selected as the main references because they describe the general pay-for-use public terminal described in the original application, and we **then show why it would have been obvious** to modify the terminal to provide for pay-for-use access to the Internet. Second, On Haiti describes payment for use of a computer terminal to access the Internet, but does not disclose payment using a credit card reader or a printer, and we explain why it would have been obvious to add a credit card reader and printer. Exhibit C expressly discloses that the TouchFax terminal can be built to provide access to the Internet. The fact that Exhibit C is a later improvement of the TouchFax terminal of Exhibits E and F, and is by the same corporation, provides the **express suggestion** to modify Exhibits E and F to provide access to the Internet. Exhibit C is not been applied as the main reference because it is easier to point to teachings in writings than in a videotape. Because Exhibits C, E, and F are pay-for-use public terminals, one skilled in the art would have been motivated to charge for access to all telephone, facsimile, and computer services, including an added computer service of access to the Internet. Exhibit D discloses that it was known to be able to connect the TouchFax pay-for-user terminal to online service providers, such as CompuServe and Prodigy, in 1991. The fact that Exhibits D, E, and F all relate to a TouchFax terminal

by the same corporation provides the express suggestion to modify Exhibits E and F to provide access to online service providers.

On Haiti discloses charging for use of a public computer terminal to access to the Internet.

One of ordinary skill in the art would have been motivated to add pay-for-use Internet access to the pay-for-use public terminals of Exhibits E and F because it merely adds an additional pay-for-use service.

The applicant fails to see any motivation, teaching or desirability to combine the references as shown; to teach the applicants claims. Nor does the applicant see how one skilled in the art would have been motivated by the BPAI reasoning for obviousness described above. The BPAI states that they are not relying on Exhibit C as a main reference, but ties it in with Exhibits D, E&F and On Haiti. The applicant fails to see how there can be an “express suggestion” to use Exhibit C, D, E & F in a combination to modify. As previously mentioned, Exhibit C was marketing tool and concept, not a capability. The owner of Touchfax stated that they did not have terminals capable of accessing and interfacing with the Internet as previously mentioned in his deposition **as late as June 1998**. Also as previously mentioned, Exhibit D did not have the all the capabilities listed on it in 1991, particularly access to on-line services. Exhibit D was simply a concept or idea, a listing of capabilities that that did not exist at the time (1991). This was stated in a deposition by the owner of Touchfax (Attachment I of RCA, pages 22&98).

#### **IV Applicants argument that the Shah Abstract teaches away accessing the Internet.**

Just to be clear, the rejection (35 U.S.C. § 103(a)) of the applicants reissue is based on the combination Exhibits E & F (attachments C&D of RCA) and based on the teaching of

Shah (Attachment B). The additional rejections by the BPAI will be addressed later in this document. Applicant will not directly address the combination of prior art discussed above since the new argument is that the Shah abstract teaches away from accessing the Internet.

A key point here is that the examiners (and BPAI) decision was based on the Shah reference teaching accessing the Internet (in combination with Exhibit E- Attachment C & Exhibit F-Attachment D). “Shah discloses a kiosk-based information system using the World Wide Web on the Internet as an interface (abstract)”

The Applicant maintains and will demonstrate that the Shah **teaches away from accessing** the Internet. And hence should not be used as a prior art rendering the applicants application as obvious in combination with exhibits E& F. The applicant maintains that the both the Examiner and BPAI misinterpreted or misread the Shah abstract. The Shah abstract does not teach accessing the Internet. The Shah Article teaching using a **“web style browser”** on a standalone or networked (not to the Internet). It teaches away from accessing the Internet. The applicant will demonstrate this in the following analysis of the Shah Abstract. The entire article needs to be read and interpreted as a whole, not just the first few introductory paragraphs. It is clear that the Shah teaches away from accessing the Internet, and only wants to use the “Interface or web browser” popularized on the Internet in the Kiosks he describes. The irony I (from the applicants view) is that if you pull this piece of prior art from the Examiners equation for a rejection it would be an “allowed” reissue patent and would have never went before the BPAI. .

**Analysis of the Shah abstract-**



**Summary-** The Shah abstract teaches using a World Wide Web type “interface” (or browser)(**Emphasis added**) as part of an information kiosk system. Below is a “cut-and-paste” of the Shah relied upon abstract paragraphs with an interpretation and comments.

The first paragraph calls out the systems that he is referencing are “kiosk based”

- The second paragraph talks about how the Internets World Wide Web has provided the internet with easy interface (**emphasis added**)
- The third paragraph talks about the requirements that that an information kiosk system based upon the World Wide Web must have. Hence, it talks about a Kiosk-based information system based upon the World Wide Web in the context of a type of user interface (emphasis added) to be used in another application, not accessing the Internet.
- Another key point

### **Abstract**

Information kiosks provide users with access to community and local information in an easily understandable format. They are designed to be used by the average user who has little or no experience with computer or information systems. Kiosk-based information systems are already available at a variety of locations from airports to shopping malls to community information centers.

World Wide Web has provided the Internet with an easy interface superceding access systems with its popularity and its capabilities. The Web naturally lends itself to a distributed kiosk-based information system although there are special requirements for such a system that current Web clients and servers not provide.

In this paper we examine the requirements that an information kiosk system based upon the World Wide Web must have before it can be widely accepted as a distributed information system for commercial and non-commercial needs.

Below is a cut-and-paste of the Shah “Introduction” in the relied upon abstract.

- Again, in the introduction Shah talks about user-friendly interfaces. He means the design of the World Wide Web interface; the browser (**not accessing the Internet**).

- Another key point in understanding the abstract is Shah's reference to Kiosk-based Information systems, not Internet based or accessible. Explicit that they are not connected to the internet, nor suggest it.

## Introduction

Kiosk-based Information system has many requirements to create the most-user friendly interface while maintaining security and functionality. *User friendliness* is the most important factor for a public access information system because of the nature of the majority of its customers as non-computer professionals. Other factors that must also be considered for these systems are the functionality and security of the servers.

Below is a cut-and- paste of the next Shah abstract paragraph.

They key to understanding/interpreting this paragraph is in the first paragraph.

Shah asks the question is why one would use the World Wide Web as a design for a

kiosk-based information system. Key points are World Wide Web as a **design**

**(Emphasis added)** and for a Kiosk- based information system. **Not Internet access.**

He goes on to talk about how the web and its capabilities (reference to the Browser or interface) are a standard on the Internet.

When he is talking about the Web, he clearly is talking about the Web and it's user

**interface.** This paragraph has the only mention of the Internet in Shah's abstract. And it is only

in the context of the Web (Browser) and its success on the Internet, not accessing the Internet

## The Effectiveness of the World Wide Web as Kiosk-based Information System

The first question that should be asked is why one would use the World Wide Web as a design for a kiosk-based information system. We have identified the reasons why the Web is ideally suited for this application:

- the Web has proven itself as a successful networked information system through its popularity on the Internet.
- the Web is part of the Internet. This allows users access to the many services on the Internet.

- the ability of the Web to access other programs and services allows programmers to extend the capabilities of the server.
- the Web is a widely accepted standard as opposed to proprietary commercial multimedia systems which holds promise for its growth and development.

Below is a cut-and- paste of the next Shah abstract paragraph.

Shah talks about interest in the World Wide Web. Then he goes on to talk about the various browsers. In context, he is talking about the functionality of the browsers. **Not interfacing or accessing the Internet.** And then he goes on to talk about who may have an interest in a “kiosk based” information system (emphasis added).

### **Who will use these systems?**

The next question asks who will actually implement and who will use these systems. There has been varied interest by commercial and non-commercial organizations in the World Wide Web. Currently there are several projects underway to develop a commercial version of popular Web browsers as well as commercial services for these browsers.

The following are some examples of who might implement such kiosk based information systems:

- Commercial, educational and governmental organizations who need to provide in-house information systems about their products and services. For example hotels, amusement parks, shopping malls, etc.
- Communities and organizations who want to install public access booths to provide community information at key locations within the community, such as community information networks, University campuses, Airport authorities, etc.
- Commercial Information Referral organization who wish to provide a paid service through kiosks

Below is a cut-and-paste of the next Shah abstract paragraph.

Here Shah talks about the recommended user interface of the Browser.

### **User Interface Program**

- Non-essential items such as buttons or menubars not directly related to the content of each page or not required for the correct usage of the system should not appear. Such items may also give a user access to secure or incomplete areas of the Webspace.

- A common device such as a toolbar should always be present to provide users with a central control mechanism to the interface system. For example, users may wish to return to the home page or skip back to previously viewed pages. This device should be modifiable to the requirements of specific installations.
- Support for internationalization and non-English languages and character sets.
- The program should be able to keep track of the history of documents accessed by the user. It should be able to understand different usage session's counting each session as one beginning from the home page. It should remove the history of access from previous sessions.
- It may be able to display graphics and movies and play digitized sounds and voice overs.
- It may be able to launch other programs to be presented upon the same output devices.
- There should be a diagnostic mode for servicing the program or the kiosk-local system.

Below is a cut-and- paste of the next Shah abstract paragraph. Her Shah talks about servers. If this were indeed an Internet accessible system, there would be no need for servers. He talks about connecting to a network and stand-alone systems with no network interface. So, at the most what he discusses is a Local Areas Network (LAN). Emphasis added. Not accessing the Internet (Emphasis added).

#### **The Server.**

There are also suggested requirements for the Server program for these information kiosk systems. Commercial organizations will most likely have an invested interest in such information kiosk systems and may require that certain procedures should be followed by the servers for these systems.

Note that each kiosk may be a standalone system containing all the local information and with a link to the rest of the network. This would be a fast but costly system since the information requested the most often would be on local storage media. This may also be difficult to implement and maintain if there is a large amount of data. However, it will reduce the cost of the network link if a non-permanent circuit or dial-up connection is used.

Below is a cut-and- paste of the next Shah abstract paragraph. Here Shah talks about

servers. This is **probably the most important paragraph** in my claim that the Shah abstract teaches away from accessing that the Internet. Here is where he talks about the functionality of the kiosk- based Information system that he describes. Again, he talks

about servers networked (LAN) providing the information. Not the Internet. If the system had functionality with the Internet it would have been in this paragraph.

### **Functionality**

The server should be able to access foreign databases which act as storehouses of raw data. The server should be able to locate these databases and the information within with the least amount of processing or translation.

The server should have good support for graphics and graphical enhancements. The concept of imagemaps are almost a must. Mapping between commands and images enhances the ease of use of system. Also useful would be a reverse of the imagemap concept where a user selects an item or enters a piece of text and its corresponding image is displayed.

Each kiosk may in turn be a client only system which access the information over the network link from a remote server and caches the information locally. To transfer the information from the server down to the kiosk may take some time but it saves cost and reduces the maintenance. This may be expensive if network connect time charges are expensive.

Below is a cut-and- paste of the next Shah abstract paragraph. Her Shah talks about servers. Her Shah talks about storage of data and associated problems. If this were Internet based or assessable this would not be an issue. He also talks about a the problems associated with local Kiosks (not networked)

### **Storage and Transfer**

Since these kiosks may be located at remote sites, the problems of data storage, caching and transfer becomes important especially considering that the information has to be presented in a rapid and predictable manner.

The problems of data storage are directly related to the actual implementation and hardware requirements of the system. Although no specific suggestions have been made as to the actual computer system required for a kiosk-based information system, the general trend is to use cheaper and cost-effective equipment to reduce the problems of theft, vandalism, or damage.

If the server and data is located locally, the kiosk would only require to use the network when accessing remote documents. The kiosk-local computer system would not require a very large cache area since the documents can be accessed very rapidly.

If the server is located remotely more considerations come into play. The server must be able to respond and transfer documents in a limited amount of time over the network link. Servers might also be able to offload requests to other similar servers when they are too busy to respond. This suggests a form of server to server communication and load-balancing which is currently *not* a part of the HTTP specification. The data may require to be replicated

across several storage systems and duplicate servers on other computer systems may be necessary as a failsafe measure to ensure constant access.

Below is a cut-and- paste of the next Shah abstract paragraph. Here Shah talks about security. Shah talks about security of stand-alone and networked systems

Again, when networked, it's a LAN. When standing alone all information is contained on the Kiosks. There is no mention of Internet accesses or interface.

## **Security**

Security of the server depends upon the type of implementation of the kiosk, whether standalone or remote server based. However, certain common elements exist in both, such as physical access to the serves computer system. Access to the console of the server should only be allowed to secure personnel to ensure the safety of the information.

Network security is another issue. Access to the computer network that the servers are located on should be secure to reduce the chance of computer cracking or vandalism of the information. Since most servers run on common operating systems such as UNIXC, VMS, etc, operating system security is also a crucial element in the safety of the information.

Data managers should decide upon a protocol for operator access, updating and maintenance of the information since it can affect the lives of many others.

Another form of access is dependent upon the content of the documents. A public system will not often.... (Article cuts off here. But irrelevant...)

No comments on the last paragraph.

## **Control**

Control involves the access to the Server and kiosk system for diagnostic examinations and also modification of the information space. Control is tied is very closely with security.

Operators and Data Managers may wish to log access to documents for statistical analysis. Keeping accurate logs of document access can help administrators anticipate growth of the installation.

Each installation should be able to decide which URI's are accessible through their server. Some installations may decide that they do not wish to provide their kiosks with access to the "news" or "mailto" services.

**Commercial organizations may also wish to charge customers for access to specific access to documents or services. The concept of registered users and billing may be built in to the server.**

In summary, the Shah abstract teaches using the World Wide Web “interface design”(browser) on a stand-alone (local) or networked (LAN). Therefore, **it clearly teaches away from accessing the Internet**. As the Shah prior art was the main reference that examiner (and BPAI) decided was rendering the applicant application obvious (because it teaches accessing the internet), when combined with Exhibits E and F. The Shah abstract does not teach, in 1994, providing Internet access from a public kiosk in order to give users access to the many services on the Internet. The analysis provided above clearly demonstrates this fact. The applicant feels that he has provided a clear and convincing argument to overcome the examiners rejection in the Final Office Action and appeal brief to the BPAI. The applicant has taken the liberty of providing a ”marked up”version of the Shah article at Appendix C to assist in the interpretation.

## **9. Remarks**

The BPAI has not shown any objective or specific teaching, suggestion or motivation as to why someone skilled in the art would combine the prior art references to yield what is in the applicant's disclosure, of January 1995, even though they approached the obvious analysis from two different avenues. The applicant feels that the BPAI used the applicant's disclosure to blue print pieces of prior art to defeat patentability. This has been clearly shown in the above arguments. As demonstrated in the applicant's

arguments, the BPAI decision appears to be a discussion of the ways multiple art references can be read on the claimed invention in **January 1995**.

The BPAI has failed to show any pertinent desirability that would suggest, teach or motivate the combination of the relied on prior art that would produce the results in the applicant's claims, disclosed in **January 1995**.

The applicant feels that he has provided a clear and convincing argument to overcome the examiners rejection in the Final Office Action of the RCA and appeal brief to the BPAI, as well as the BPAI rejections of obviousness to issue an allowance.

#### **10. Summary.**

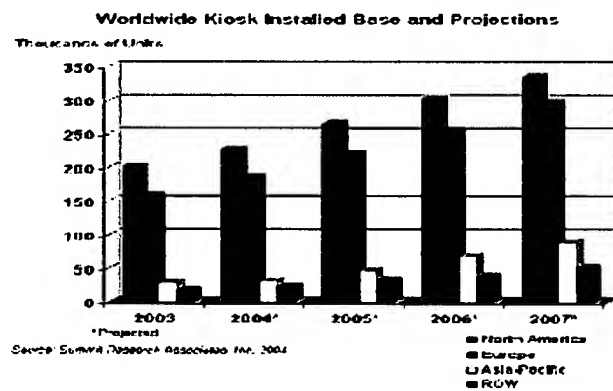
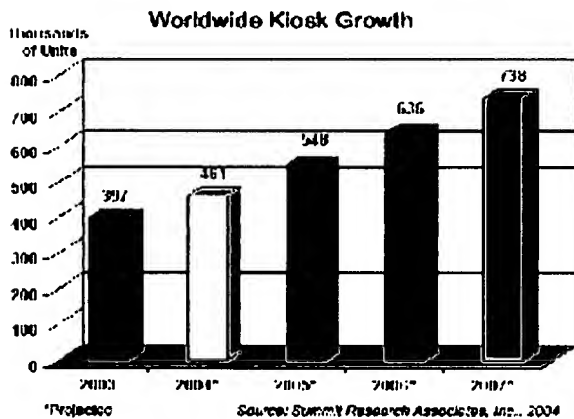
In addition to the arguments provided above, additional indicia of nonobviousness relating to this reissue action should be considered and addressed by the BPAI:

- **The applicant's claims provides an unexpected result.** The appellant's invention provides for an unexpected result. The results achieved by this invention are new (at the time of the original disclosure), unexpected, superior, unsuggested by any of the relied on prior art. Specifically, a public access terminal allowing interface and access to the Internet and allowing for use a credit card for use of the terminal or other activity.
- **The application solves a different problem.** Appellant's invention solves a different problem than the references, and such different problem is recited in the claims. *In re Wright, 6 USPQ2d 1959 (1988)* Specifically, a public access terminal allowing interface and access to the Internet and allowing for use a credit card for use of the terminal or other activity.



- **There has been unsuggested combination.** The prior art references do not contain any suggestion (express or implied) that they be combined, or that they be combined as the examiner and theBPAI suggests. The BPAI attempts to do this by combining ~8 pieces of prior that was not suggested.
- **Modifications are necessary.** It would be necessary to make modifications, not taught in the prior art, in order to combine the references in the manner suggested by the examiner.
- **Multiplicity of references.** The fact that ~ eight references must be combined in two different methods (three counting the examiner) to meet the claims invention is unequivocal evidence of nonobviousness.
- **Prior Art References.** The Patent (5,602,905) that the applicant is prosecuting for reissue is referenced as prior art in 81 issued patents. A typical patent is mentioned as prior art ~ 6-12 times in issued patents. A patent that is mentioned ~12-30 times as prior art in issued patents is usually considered a technology leading patent and has a high rating factor for commercial success. So, I guess a patent that is mentioned 81 times as prior art in issued patents is a home run technology wise and commercial wise. This definitely points to nonobviousness.
- **Failure of Others.** Prior to the applicant's January 1995 disclosure, no entity had produced a terminal that contained all of the elements of the applicant's claims.  
The examiner herself stated that in an office action, dated 08/25/99 (page 4 line 5-17) that the majority of the references that the BPAI cites as obvious, were not invented prior to the applicant's disclosure. The protestors had claimed that Exhibits C, D, E, F and G demonstrated that they made public the subject of the patent.

**Commercial Success.** The below graphics depicts worldwide Internet Kiosk growth that was on Summit Research Consulting web site ([http://www.summit-res.com/kanditreport\\_gs.html](http://www.summit-res.com/kanditreport_gs.html)) in April 2005. Summit Research are considered experts in the Kiosk field. At Appendix D is an overview of an Internet Kiosk report in 2002 by Summit Research. The majority of these kiosk employ elements of my claims.



Appellant respectfully requests that the rejections are withdrawn and allowance be provided. The appellant has made a diligent effort to amend the application so that it is in an allowable state that defines a novel structure, nonobviousness, because it produces new and unexpected results at the time of the application (**January 23, 1995**).

Sincerely,

Richard P. Mettke  
7921 Panary Court,  
Reynoldsburg, OH 43068

Voice: 614-861-1847

FAX: 614-458-6446

Email: rmettke@aol.com

**Appendices:**

**Appendix A-** The Claims

**Appendix B-** Shah Abstract (Clean)

**Appendix C-** Shah Abstract (write on version)

**Appendix D-** Patent 5,602,905 references as prior art

**Appendix E** – Summit Research Internet Kiosk Report Outline, 2002.

**Appendix A-**

**THE CLAIMS**

**Claim Status:**

**The Claims:**

**Claim 6 (Amended)**

A public on-line Internet terminal comprising a:

a central processing unit (CPU);

a video display monitor coupled to the CPU;

a keyboard for providing user interface coupled to the CPU;

a credit card reader swipe device coupled to the CPU for accepting payment by a user for use of the terminal or other activity;

means for accessing the Internet and allow for user interaction;

software installed into the CPU to allow interface with the Internet and credit card service centers; and a printer coupled to the CPU.

# THE WORLD WIDE WEB

rwn Shah  
rwn@rd.com  
RD Systems & Networking, Inc.  
01 N. Campbell Ave., Ste 202B  
Scottsdale, Arizona, 85719  
602 318 0696 [US]

clean

the World Wide Web Information Kiosks Special Interest Group

April 1994

## Abstract

Information kiosks provide users with access to community and local information in an easily understandable format. They are designed to be used by the average user who has little or no experience with computer or information systems. Kiosk-based information systems are already available at a variety of locations from airports to shopping malls to community information centers.

The World Wide Web has provided the Internet with an easy interface superceding other access systems in its popularity and its capabilities. The Web naturally lends itself to a distributed kiosk-based information system although there are special requirements for such a system that current Web clients and servers do not provide.

In this paper we examine the requirements that an information kiosk system based upon the World Wide Web must have before it can be widely accepted as a distributed information system for commercial and non-commercial needs.

## Introduction

Kiosk-based Information system has many requirements to create the most user-friendly interface while maintaining security and functionality. *User-friendliness* is the most important factor for a public access information system because of the nature of the majority of its customers as non-computer professionals. Other factors that must also be considered for these systems are the functionality and security of the servers.

## The Effectiveness of the World Wide Web as Kiosk-based Information System

The first question that should be asked is why one would use the World Wide Web as a design for a kiosk-based information system. We have identified the reasons why the Web is ideally suited for this application:

- the Web has proven itself as a successful networked information system through its popularity on the Internet.

## EXHIBIT

I

Appendix  
B

APP D

~~EXHIBIT~~

- the Web is part of the Internet. This allows users access to the many services on the Internet.
- the ability of the Web to access other programs and services allows programmers to extend the capabilities of the server.
- the Web is a widely accepted standard as opposed to proprietary commercial multimedia systems which holds promise for its growth and development.

## Who will use these systems?

The next question asks who will actually implement and who will use these systems. There has been varied interest by commercial and non-commercial organizations in the World Wide Web. Currently there are several projects underway to develop a commercial version of popular Web browsers as well as commercial services for these browsers.

The following are some examples of who might implement such kiosk-based information systems:

- Commercial, educational and governmental organizations who need to provide in-house information systems about their products and services. For example, hotels, amusement parks, shopping malls, etc.
- Communities and organizations who want to install public access booths to provide community information at key locations within the community, such as community information networks, University campuses, Airport authorities, etc.
- Commercial Information Referral organizations who wish to provide a paid service through such kiosks. *Advertising*

## The Access Interface

The Access Interface comprises both the programs as well as the computer hardware necessary for a kiosk-based information system. This includes the Web browser or client program, the output hardware (the visual display unit, a sound system, printing systems), the input hardware (touch-screen systems, keyboards, light-pens & stylus, keypads, etc.), the kiosk-local processing hardware (if any), kiosk-local cache or information storage (if any), and the network connection hardware.

The user interface or Web browser will be accessed by the average user who may have very little or no experience with computer system. The user interface for a kiosk-based information system should be:

- Easy to use controls. Controls for the kiosk system should be understandable and easy to handle.
- Easy to understand information display. The text or visual information should be easily readable and understood in content and form by the user.
- Access to contents should be as direct as possible. The user should have to go through as few steps as possible for to reach the information they require.
- Documents should be transferred in as short an access time as possible or present a failed message if the time to access the document is longer than a certain amount considered as  $t=\infty$ .
- The program interface should be able to return to a default home page automatically when left idle for an extended period of time.
- The physical unit should be reasonably secure to tampering or vandalism so as not to provide incorrect information.

The server should be able to access foreign databases which act as storehouses of raw data. The server should be able to locate these databases and the information within with the least amount of processing or translation.

The server should have good support for graphics and graphical enhancements. The concept of imagemaps are almost a must. Mapping between commands and images enhances the ease of use of system. Also useful would be a reverse of the imagemap concept where a user selects an item or enters a piece of text and its corresponding image is displayed.

## **Storage and Transfer**

Since these kiosks may be located at remote sites, the problems of data storage, caching and transfer becomes important especially considering that the information has to be presented in a rapid and predictable manner.

The problems of data storage are directly related to the actual implementation and hardware requirements of the system. Although no specific suggestions have been made as to the actual computer system required for a kiosk-based information system, the general trend is to use cheaper and cost-effective equipment to reduce the problems of theft, vandalism, or damage.

If the server and data is located locally, the kiosk would only require to use the network when accessing remote documents. The kiosk-local computer system would not require a very large cache area since the documents can be accessed very rapidly.

If the server is located remotely more considerations come into play. The server must be able to respond and transfer documents in a limited amount of time over the network link. Servers might also be able to offload requests to other similar servers when they are too busy to respond. This suggests a form of server to server communication and load-balancing which is currently *not* a part of the HTTP specification. The data may require to be replicated across several storage systems and duplicate servers on other computer systems may be necessary as a failsafe measure to ensure constant access.

## **Security**

Security of the server depends upon the type of implementation of the kiosk, whether standalone or remote server based. However, certain common elements exist in both, such as physical access to the server's computer system. Access to the console of the server should only be allowed to secure personnel to ensure the safety of the information.

Network security is another issue. Access to the computer network that the servers are located on should be secure to reduce the chance of computer cracking or vandalism of the information. Since most servers run on common operating systems such as UNIX, VMS, etc., operating system security is also a crucial element in the safety of the information.

Data managers should decide upon a protocol for operator access, updating and maintenance of the information since it can affect the lives of many others.

Another form of access is dependent upon the content of the documents. A public system will not often

## Control

Control involves the access to the server and kiosk system for diagnostic examinations and also modification of the information space. Control is tied in very closely with security.

Operators and Data Managers may wish to log access to documents for statistical analysis. Keeping accurate logs of document access can help administrators anticipate growth of the installation.

Each installation should be able to decide which URI's are accessible through their server. Some installations may decide that they do not wish to provide their kiosks with access to the "news" or "mailto" services.

Commercial organizations may also wish to charge customers for access to specific documents or services. The concept of registered users and billing may be built into the server.

## References

- Berners-Lee, Tim, (1993). *Hypertext Transfer Protocol*,  
Working Internet Draft. CERN
- Cronin, Mary J. (1993). *Doing Business on the Internet: How  
the Electronic Highway is Transforming American Companies*, New York, NY: Van Nostrand  
Reinhold.
- Gaffin, Adam (1994). *Visiting Museums on the Internet*,  
Internet World Magazine, MecklerMedia Publishing, Inc. March/April, pg 24.
- Krol, Ed., (1994). *The Whole Internet User's Guide & Catalog*,  
Second Edition, Sebastopol, CA: O'Reilly & Assoc.
- MERIT, Inc. (1994). *NSFNET Byte Traffic History*.  
URL: <http://nic.merit.edu/nsfnet/statistics/history.bytes>, March.
- Shah, Rawn, (1994). *Information Kiosks and the World Wide Web*,  
URL <http://www.rtd.com/people/rawn/kiosks.html>



# THE WORLD WIDE WEB

ram Shah  
wm@rd.com  
RD Systems & Networking, Inc.  
01 N. Campbell Ave., Ste 202B  
Scottsdale, Arizona, 85719  
602 318 0696 [US]

Write-on  
version

World Wide Web Information Kiosks Special Interest Group

April 1994

## Abstract

Information kiosks provide users with access to community and local information in an easily understandable format. They are designed to be used by the average user who has little or no experience with computer or information systems. Kiosk-based information systems are already available at a variety of locations from airports to shopping malls to community information centers.

The World Wide Web has provided the Internet with an easy interface superceding other access systems in its popularity and its capabilities. The Web naturally lends itself to a distributed kiosk-based information system although there are special requirements for such a system that current Web clients and servers do not provide.

In this paper we examine the requirements that an information kiosk system based upon the World Wide Web must have before it can be widely accepted as a distributed information system for commercial and non-commercial needs.

## Introduction

Kiosk-based Information system has many requirements to create the most user-friendly interface while maintaining security and functionality. *User-friendliness* is the most important factor for a public access information system because of the nature of the majority of its customers as non-computer professionals. Other factors that must also be considered for these systems are the functionality and security of the servers.

## The Effectiveness of the World Wide Web as Kiosk-based Information System

The first question that should be asked is why one would use the World Wide Web as a design for a kiosk-based information system. We have identified the reasons why the Web is ideally suited for this application:

- the Web has proven itself as a successful networked information system through its popularity on the Internet.

## EXHIBIT

I

95 design  
www design  
95 an  
Interface

Appendix C

- the Web is part of the Internet. This allows users access to the many services on the Internet.
- the ability of the Web to access other programs and services allows programmers to extend the capabilities of the server.
- the Web is a widely accepted standard as opposed to proprietary commercial multimedia systems which holds promise for its growth and development.

He means the web as  
an interface or browser

## Who will use these systems?

The next question asks who will actually implement and who will use these systems. There has been varied interest by commercial and non-commercial organizations in the World Wide Web. Currently there are several projects underway to develop a commercial version of popular Web browsers as well as commercial services for these browsers.

Web Browser

The following are some examples of who might implement such kiosk-based information systems:

Kiosk  
based  
hot internet

- Commercial, educational and governmental organizations who need to provide in-house information systems about their products and services. For example, hotels, amusement parks, shopping malls, etc.
- Communities and organizations who want to install public access booths to provide community information at key locations within the community, such as community information networks, University campuses, Airport authorities, etc.
- Commercial Information Referral organizations who wish to provide a paid service through such kiosks. *Advertising*

## The Access Interface

Interface - POS

The Access Interface comprises both the programs as well as the computer hardware necessary for a kiosk-based information system. This includes the Web browser or client program, the output hardware (the visual display unit, a sound system, printing systems), the input hardware (touch-screen systems, keyboards, light-pens & stylus, keypads, etc.), the kiosk-local processing hardware (if any), kiosk-local cache or information storage (if any), and the network connection hardware.

Not  
Internet  
based

No mention  
of  
Internet

The user interface or Web browser will be accessed by the average user who may have very little or no experience with computer system. The user interface for a kiosk-based information system should be:

Not  
Internet  
based

- Easy to use controls. Controls for the kiosk system should be understandable and easy to handle.
- Easy to understand information display. The text or visual information should be easily readable and understood in content and form by the user.
- Access to contents should be as direct as possible. The user should have to go through as few steps as possible for to reach the information they require.
- Documents should be transferred in as short an access time as possible or present a failed message if the time to access the document is longer than a certain amount considered as  $t = \infty$ .
- The program interface should be able to return to a default home page automatically when left idle for an extended period of time.
- The physical unit should be reasonably secure to tampering or vandalism so as not to provide incorrect information.

- A minimal number of input devices so as not to confuse the user.
- Easy to use input devices such as a touch-screen or stylus based system
- The unit must be at an adequate height so that it is accessible by most people including handicapped users.
- The output devices should be easy to understand. Visual display output devices should be large enough to be read without difficulty by any type of user. A sound system should be clear enough to be understood but not loud enough to offend.
- Security against vandalism or theft of the kiosk should be maintained.
- A set of clear operating instructions for the booth must be displayed in some form on the physical unit of the booth to ensure proper usage.

No mention of Internet

## • User Interface Program

- Non-essential items such as buttons or menubars not directly related to the content of each page or not required for the correct usage of the system should not appear. Such items may also give a user access to secure or incomplete areas of the Webpace. → Browser
- A common device such as a toolbar should always be present to provide users with a central control mechanism to the interface system. For example, users may wish to return to the home page or skip back to previously viewed pages. This device should be modifiable to the requirements of specific installations.
- Support for internationalization and non-English languages and character sets.
- The program should be able to keep track of the history of documents accessed by the user. It should be able to understand different usage sessions counting each session as one beginning from the home page. It should remove the history of access from previous sessions.
- It may be able to display graphics and movies and play digitized sounds and voice overs.
- It may be able to launch other programs to be presented upon the same output devices.
- There should be a diagnostic mode for servicing the program or the kiosk-local system.

No mention of Internet in the User Interface

## The Server

There are also suggested requirements for the Server program for these information kiosk systems.

Commercial organizations will most likely have an invested interest in such information kiosk systems and may require that certain procedures should be followed by the servers for these systems.

Note that each kiosk may be a standalone system containing all the local information and with a link to the rest of the network. This would be a fast but costly system since the information requested the most often would be on local storage media. This may also be difficult to implement and maintain if there is a large amount of data. However, it will reduce the cost of the network link if a non-permanent circuit or dial-up connection is used.

Standalone or wide area network

Each kiosk may in turn be a client only system which access the information over the network link from a remote server and caches the information locally. To transfer the information from the server down to the kiosk may take some time but it saves cost and reduces the maintenance. This may be expensive if network connect time charges are expensive.

Functionality

No mention of Internet

The server should be able to access foreign databases which act as storehouses of raw data. The server should be able to locate these databases and the information within with the least amount of processing or translation.

- not internet

no  
Internet

The server should have good support for graphics and graphical enhancements. The concept of imagemaps are almost a must. Mapping between commands and images enhances the ease of use of system. Also useful would be a reverse of the imagemap concept where a user selects an item or enters a piece of text and its corresponding image is displayed.

## Storage and Transfer

Since these kiosks may be located at remote sites, the problems of data storage, caching and transfer becomes important especially considering that the information has to be presented in a rapid and predictable manner.

The problems of data storage are directly related to the actual implementation and hardware requirements of the system. Although no specific suggestions have been made as to the actual computer system required for a kiosk-based information system, the general trend is to use cheaper and cost-effective equipment to reduce the problems of theft, vandalism, or damage.

No  
mention  
of  
Internet

If the server and data is located locally, the kiosk would only require to use the network when accessing remote documents. The kiosk-local computer system would not require a very large cache area since the documents can be accessed very rapidly.

If the server is located remotely more considerations come into play. The server must be able to respond and transfer documents in a limited amount of time over the network link. Servers might also be able to offload requests to other similar servers when they are too busy to respond. This suggests a form of server to server communication and load-balancing which is currently *not* a part of the HTTP specification. The data may require to be replicated across several storage systems and duplicate servers on other computer systems may be necessary as a failsafe measure to ensure constant access.

## Security

Security of the server depends upon the type of implementation of the kiosk, whether standalone or remote server based. However, certain common elements exist in both, such as physical access to the server's computer system. Access to the console of the server should only be allowed to secure personnel to ensure the safety of the information.

standalone or remote server

Local computer network

no  
Internet

Network security is another issue. Access to the computer network that the servers are located on should be secure to reduce the chance of computer cracking or vandalism of the information. Since most servers run on common operating systems such as UNIX, VMS, etc., operating system security is also a crucial element in the safety of the information.

Data managers should decide upon a protocol for operator access, updating and maintenance of the information since it can affect the lives of many others.

Another form of access is dependent upon the content of the documents. A public system will not often

## Control

Control involves the access to the server and kiosk system for diagnostic examinations and also modification of the information space. Control is tied in very closely with security.

Operators and Data Managers may wish to log access to documents for statistical analysis. Keeping accurate logs of document access can help administrators anticipate growth of the installation.

Each installation should be able to decide which URI's are accessible through their server. Some installations may decide that they do not wish to provide their kiosks with access to the "news" or "mailto" services.

Commercial organizations may also wish to charge customers for access to specific documents or services. The concept of registered users and billing may be built into the server.

## References

- Berners-Lee, Tim, (1993). *Hypertext Transfer Protocol*,  
Working Internet Draft. CERN
- Cronin, Mary J. (1993). *Doing Business on the Internet: How  
the Electronic Highway is Transforming American Companies*, New York, NY: Van Nostrand  
Reinhold.
- Gaffin, Adam (1994). *Visiting Museums on the Internet*,  
Internet World Magazine, MecklerMedia Publishing, Inc. March/April, pg 24.
- Krol, Ed., (1994). *The Whole Internet User's Guide & Catalog*,  
Second Edition, Sebastopol, CA: O'Reilly & Assoc.
- MERIT, Inc. (1994). *NSFNET Byte Traffic History*.  
URL: <http://nic.merit.edu/nsfnet/statistics/history.bytes>, March.
- Shah, Rawn, (1994). *Information Kiosks and the World Wide Web*,  
URL: <http://www.rtd.com/people/rawn/kiosks.html>

**USPTO PATENT FULL-TEXT AND IMAGE DATABASE**

<a href="#">Home</a>	<a href="#">Quick</a>	<a href="#">Advanced</a>	<a href="#">Pat Num</a>	<a href="#">Help</a>
<a href="#">Next List</a>	<a href="#">Bottom</a>	<a href="#">View Cart</a>		

*Searching US Patent Collection...*

**Results of Search in US Patent Collection db for:****REF/5602905:** 81 patents.*Hits 1 through 50 out of 81*

Final 31 Hits

Jump To

Refine Search      ref/5602905

PAT. NO.	Title
1 7,171,686	<b>T</b> <u>Operating system extension to provide security for web-based public access services</u>
2 7,155,663	<b>T</b> <u>Technique for implementing browser-initiated user-transparent network-distributed advertising and for interstitially displaying an advertisement, so distributed, through a web browser in response to a user click-stream</u>
3 7,149,958	<b>T</b> <u>Technique for implementing browser-initiated user-transparent network-distributed advertising and for interstitially displaying an advertisement, so distributed, through a web browser in response to a user click-stream</u>
4 7,149,723	<b>T</b> <u>System and method for determining computer access with electronic payment mechanism</u>
5 7,143,337	<b>T</b> <u>Apparatus and accompanying methods for network distribution and interstitial rendering of information objects to client computers</u>
6 7,120,235	<b>T</b> <u>Method and apparatus to provide pay-per-call performance based advertising</u>
7 7,107,335	<b>T</b> <u>Network access control device through fast recognition of application frames</u>
8 7,089,209	<b>T</b> <u>Method for revaluing a phone card</u>
9 7,025,255	<b>T</b> <u>Application service provider and automated transaction machine system and method</u>
10 6,990,630	<b>T</b> <u>TECHNIQUE FOR IMPLEMENTING BROWSER-INITIATED USER-TRANSPARENT NETWORK-DISTRIBUTED ADVERTISING AND FOR INTERSTITIALLY DISPLAYING AN ADVERTISEMENT, SO DISTRIBUTED, THROUGH A WEB BROWSER IN RESPONSE TO A USER CLICK-STREAM</u>
11 6,978,252	<b>T</b> <u>Method and system for transacting with network traffic</u>
12 6,945,457	<b>T</b> <u>Automated transaction machine</u>
13 6,944,667	<b>T</b> <u>Multi-media remote data access terminals and system</u>

- 14 6,907,476 **T** Open network system and method for I/O operations with non-standard I/O devices using an extended open network protocol
- 15 6,880,123 **T** Apparatus and accompanying methods for implementing a network distribution server for use in providing interstitial web advertisements to a client computer
- 16 6,865,540 **T** Method and apparatus for providing group calls via the internet
- 17 6,850,996 **T** System and method for enabling transactions between a web server and an automated teller machine over the internet
- 18 6,847,998 **T** Apparatus for control and certification of the delivery of goods
- 19 6,807,532 **T** Method of soliciting a user to input survey data at an electronic commerce terminal
- 20 6,801,899 **T** Assistance method and apparatus
- 21 6,785,659 **T** Agent-based technique for implementing browser-initiated user-transparent interstitial web advertising in a client computer
- 22 6,763,336 **T** METHOD OF TRANSACTING AN ELECTRONIC MAIL, AN ELECTRONIC COMMERCE, AND AN ELECTRONIC BUSINESS TRANSACTION BY AN ELECTRONIC COMMERCE TERMINAL USING A WIRELESSLY NETWORKED PLURALITY OF PORTABLE DIGITAL DEVICES
- 23 6,754,641 **T** Dynamic identification interchange method for exchanging one form of identification for another
- 24 6,745,259 **T** OPEN NETWORK SYSTEM FOR I/O OPERATION INCLUDING A COMMON GATEWAY INTERFACE AND AN EXTENDED OPEN NETWORK PROTOCOL WITH NON-STANDARD I/O DEVICES UTILIZING DEVICE AND IDENTIFIER FOR OPERATION TO BE PERFORMED WITH DEVICE
- 25 6,732,178 **T** Forced network portal
- 26 6,704,403 **T** Apparatus and method for ensuring a real-time connection between users and selected service provider using voice mail
- 27 6,694,387 **T** System for enabling smart card transactions to occur over the internet and associated method
- 28 6,688,518 **T** Wall-mounted touch screen information system
- 29 6,687,737 **T** Apparatus and accompanying methods for network distribution and interstitial rendering of information objects to client computers
- 30 6,684,269 **T** System and method for enabling transactions between a web server and a smart card, telephone, or personal digital assistant over the internet
- 31 6,684,197 **T** Method for revaluing a private label card using an electronic commerce terminal
- 32 6,643,623 **T** Method of transacting an electronic mail, an electronic commerce, and an electronic business transaction by an electronic commerce terminal using a gas pump
- 33 6,636,590 **T** Apparatus and method for specifying and obtaining services through voice commands
- 34 6,629,080 **T** Transaction processing method of fulfilling an electronic commerce transaction by an electronic commerce terminal system
- 35 6,625,645 **T** Automatic static to dynamic IP address and DNS address management for remote communications network access
- 36 6,622,124 **T** Method of transacting an electronic mail, an electronic commerce, and an electronic business transaction by an electronic commerce terminal operated on a transportation vehicle
- 37 6,615,183 **T** Method of warehousing user data entered at an electronic commerce terminal
- 38 6,611,810 **T** Store display window connected to an electronic commerce terminal

- 39 [6,609,103](#) **T** [Electronic commerce terminal for facilitating incentive-based purchasing on transportation vehicles](#)
- 40 [6,609,102](#) **T** [Universal interactive advertizing and payment system for public access electronic commerce and business related products and services](#)
- 41 [6,606,605](#) **T** [Method to obtain customer specific data for public access electronic commerce services](#)
- 42 [6,606,602](#) **T** [Vending machine control system having access to the internet for the purposes of transacting e-mail, e-commerce, and e-business, and for conducting vending transactions](#)
- 43 [6,604,087](#) **T** [Vending access to the internet, business application software, e-commerce, and e-business in a hotel room](#)
- 44 [6,604,086](#) **T** [Electronic commerce terminal connected to a vending machine operable as a telephone](#)
- 45 [6,604,085](#) **T** [Universal interactive advertising and payment system network for public access electronic commerce and business related products and services](#)
- 46 [6,601,040](#) **T** [Electronic commerce terminal for wirelessly communicating to a plurality of communication devices](#)
- 47 [6,601,039](#) **T** [Gas pump control system having access to the internet for the purposes of transacting e-mail, e-commerce, and e-business, and for conducting vending transactions](#)
- 48 [6,601,038](#) **T** [Delivery of goods and services resultant from an electronic commerce transaction by way of a pack and ship type company](#)
- 49 [6,601,037](#) **T** [System and method of processing credit card, e-commerce, and e-business transactions without the merchant incurring transaction processing fees or charges worldwide](#)
- 50 [6,549,889](#) **T** [Assistance method and apparatus](#)
- 







### Table of Contents

#### REPORT

#### INTRODUCTION and EXECUTIVE SUMMARY

Riding the Internet Coattails  
Installed Base  
Revenue Projections  
Market Sectors

#### INDUSTRY ACTIVITIES

Public Sector  
Public Transportation  
Self-Checkout Devices  
Web Payphones  
Financial Services  
Retail

#### SURVEY RESULTS

Number of Kiosks Installed  
Hours of Heaviest Kiosk Use:  
All Kiosks  
Number of Users per Day:  
All Kiosks  
Number of Users per Day:  
North America  
Number of Users per Day:  
Europe  
Number of Users per Day:  
Pacific Rim  
Number of Users per Day:  
Rest of the World  
Average Time Spent at the Kiosk  
Cost per Kiosk  
Cost per Unit-North America  
Cost per Unit-Europe  
Cost per Unit-Pacific Rim  
Cost per Unit-ROW  
Peripherals Used in Kiosks  
Kiosk Pointing Devices  
Kiosk Payment Acceptors  
Online Language Populations  
Internet Access Devices:  
Per Minute Charges  
Free Sites  
Usage Patterns  
Remote Monitoring Software  
Service Providers  
Consumables Providers

## our reports

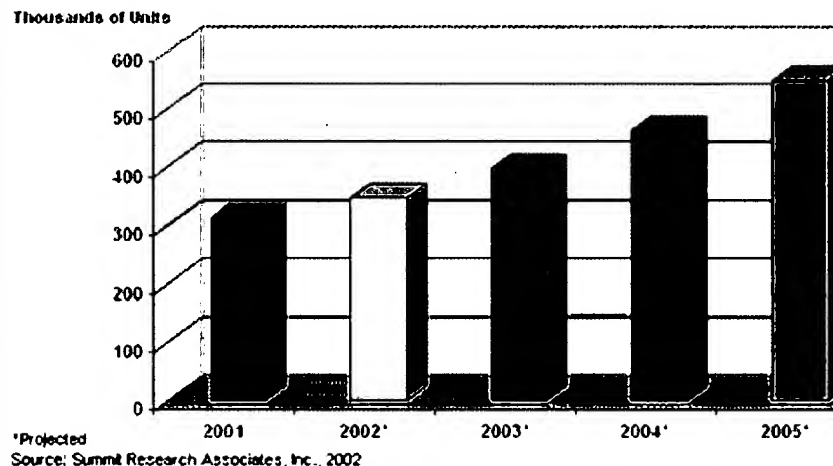
### *Kiosks and Internet Technology*

Totally re-written in 2002, this report is the most comprehensive ever produced on the kiosk industry. Based upon an unprecedented response to an extensive survey and follow-up research, it provides Internet kiosk installed base and revenue projections from the present time through 2005. The nearly 500-page report includes 35 charts and tables, examines current trends on the leading kiosk issues of the day and offers many additional looks at the future of this fast-growing industry.

The report defines Internet Kiosks as traditional kiosks whose data is Web-based and whose customers use a proprietary or commercially available easy to use "browser wrapper" to access that information. The report no longer separates public Internet access devices, also known as Web Payphones, into a unique category. These are public terminals where users pay for each minute of connect time to conduct a wide variety of activities, including general Web surfing, e-mail, and e-commerce. In increasingly rare cases, advertisers absorb online costs, thereby offering free access.

The report provides detailed information on 225 companies in the Internet kiosk industry, discussing the market segments they are targeting (including key customers), their featured applications, the key design and development issues they face, what sets them apart from the competition and other valuable statistics of interest to kiosk, financial and telecommunication professionals. The following chart illustrates the current and projected growth for the industry. While it reflects a slow and steady improvement, it also shows the reality of the past year when many kiosk projects were on hold until the economy begins to recover. Summit believes that 2002 will be a year of re-grouping; the upswing of activity will not begin in earnest until 2003.

Worldwide Internet Kiosk Growth



The report features company profiles of 225 companies in the Internet kiosk industry, representing 38 countries around the world. Countries included

Appendix E

22. Peripherals Used in Kiosks
23. Kiosk Pointing Devices
24. Kiosk Payment Acceptors
25. Online Language Populations
26. Internet Access Devices- Per Minute Charges
27. Access to Free Sites
28. Usage Patterns
29. Remote Monitoring
30. Service Providers
31. Providers of Consumables Replenishment
32. Leading Development Issues
33. Leading Design Issues
34. Special Capabilities
35. Future Plans

number and expiration date. You will receive the report promptly.

---

[Reports](#) | [Clients](#) | [Experience](#) | [Services](#) | [Home](#)

[info@summit-res.com](mailto:info@summit-res.com)  
**Summit Research Associates, Inc.**  
7728 Warbler Lane, Rockville, MD 20855-1034  
(301) 670-0980 Fax: (301) 670-1006  
European office: 34-93-659-3768  
Copyright © 1998-2003. All Rights Reserved.

Leading Development Issues  
Leading Design Issues  
Special Capabilities  
Future Plans

#### COMPANY PROFILES

More than 220 companies are profiled.

APPENDIX A Kiosk Questionnaire

APPENDIX B Commercially Available

Browser Front-Ends

APPENDIX C ADA Resources

#### Table of Figures

1. Internet Kiosk Current and Projected Installed Base
2. Internet Kiosk Installed Base, 2001
3. Internet Kiosk Installed Base, 2001-2005
4. Internet Kiosk Installed Base, Percentage Growth 2002-2005
5. Internet Kiosks, Current and Projected Revenues
6. Worldwide Internet Kiosk CAGR, 2001-2005
7. Worldwide Internet Kiosk Market Breakdown
8. 2001 Worldwide Kiosk Industry Market Sectors
9. Number of Kiosks
10. Hours of Heaviest Kiosk Use
11. Average Number of Users per Day
12. Average Number of Users per Day - North America
13. Average Number of Users per Day - Europe
14. Average Number of Users per Day - Pacific Rim
15. Average Number of Users per Day - Rest of the World
16. Average Time Spent at the Kiosk
17. Overall Cost per Kiosk
18. Cost per Unit - North America
19. Cost per Unit - Europe
20. Cost per Unit - Pacific Rim
21. Cost per Unit - ROW

are:

Argentina  
Australia  
Austria  
Belgium  
Brazil  
Canada  
Chile  
Denmark  
Finland  
France  
Germany  
Greece  
Hong Kong  
Iceland  
India  
Ireland  
Israel  
Italy  
Korea

Luxembourg  
Mexico  
New Zealand  
Peru  
Philippines  
Portugal  
Russia  
Scotland  
Singapore  
Slovenia  
South Africa  
Spain  
Switzerland  
Taiwan  
Thailand  
The Netherlands  
Turkey  
United Kingdom  
United States

Some of the **225** companies profiled in the report include:

Abuzz Technologies  
Apunix  
Arral Industries  
Avanzit Tecnologia  
BluePoint Technologies  
CatEye9  
Connecto  
Cyberdeck  
Cybertotems  
Data Asia Technology  
Datatrax Multimedia Systems  
ELO Touchsystems  
Epoint Ltd  
Frank Mayer & Associates  
Friendlyway  
High Technology Solutions  
Horizon USA  
IBM  
Jentro AG  
Kioscosnet  
Kiosk Information Systems  
Korea Data Network  
Kudos Development Group  
Marconi Interactive Systems  
MontegoNet  
Myriad Communications Ltd.

Nanonation  
NCR  
NeoProducts  
Netkey  
NetNearU  
NetShift  
Netyou  
Olea  
Papelaco  
PFLS  
PIX Corp.  
Pixel Magic Imaging  
PowerPhone Network  
St. Clair Interactive  
SeePoint Technology  
Sriven Multitech, Ltd.  
Streak Technology  
TELeasy  
Telweb  
The Kiosk Factory  
TouchPoint Technologies  
Triplot Ltd.  
ULTIMedia  
WebHighway  
WebPoint  
Wincor Nixdorf

**Kiosks and Internet Technology** is available either as a PDF or CD- To order the report or for individual or site licensing pricing, please cor [Marta@summit-res.com](mailto:Marta@summit-res.com) or call us at (301) 670-0980 or in the Barceloi office: 34-93-659-3768. Major credit cards (Visa, MasterCard and Ame Express), company checks and wire transfers are accepted. Ordering easy; simply email, fax or phone us with the bank information or credit